

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

KOLSTER OY
Iso Roobertinkatu 23
P.O. Box 148
FIN-00121 Helsinki
FINLANDE

Date of mailing (day/month/year) 22 March 2001 (22.03.01)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference P299019PC/ko	
International application No. PCT/FI00/00781	International filing date (day/month/year) 15 September 2000 (15.09.00)

1. The following indications appeared on record concerning:	
<input type="checkbox"/> the applicant	<input type="checkbox"/> the inventor <input checked="" type="checkbox"/> the agent <input type="checkbox"/> the common representative
Name and Address POHJANMAAN PATENTTITOIMISTO KOLSTER OY C/o Kolster OY AB Iso Roobertinkatu 23 P.O. Box 148 FIN-00121 Helsinki Finland	State of Nationality
	State of Residence
	Telephone No. 358 9 618 821
	Facsimile No. +358 9 602 244
2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:	
<input type="checkbox"/> the person <input checked="" type="checkbox"/> the name <input type="checkbox"/> the address <input type="checkbox"/> the nationality <input type="checkbox"/> the residence	
Name and Address KOLSTER OY Iso Roobertinkatu 23 P.O. Box 148 FIN-00121 Helsinki Finland	State of Nationality
	State of Residence
	Telephone No. 358 9 618 821
	Facsimile No. +358 9 602 244
3. Further observations, if necessary:	
4. A copy of this notification has been sent to:	
<input checked="" type="checkbox"/> the receiving Office	<input checked="" type="checkbox"/> the designated Offices concerned
<input type="checkbox"/> the International Searching Authority	<input type="checkbox"/> the elected Offices concerned
<input type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Marie-José Devillard
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

PATENT COOPERATION TREATY

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NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
 US Department of Commerce
 United States Patent and Trademark
 Office, PCT
 2011 South Clark Place Room
 CP2/5C24
 Arlington, VA 22202
 ETATS-UNIS D'AMERIQUE
 in its capacity as elected Office

Date of mailing (day/month/year) 08 May 2001 (08.05.01)	
International application No. PCT/FI00/00781	Applicant's or agent's file reference P299019PC/ko
International filing date (day/month/year) 15 September 2000 (15.09.00)	Priority date (day/month/year) 17 September 1999 (17.09.99)
Applicant PETÄJÄ-SUVANTO, Tuomo	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
 28 March 2001 (28.03.01)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Claudio Borton Telephone No.: (41-22) 338.83.38
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PATENT COOPERATION TREATY

WO 01/20978
PCT/FI00/00781

- 9 -04- 2001

PCT

NOTICE INFORMING THE APPLICANT OF THE COMMUNICATION OF THE INTERNATIONAL APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

From the INTERNATIONAL BUREAU

To:

POHJANMAAN PATENTTITOIMISTO
KOLSTER OY
C/o Kolster OY AB
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P.O. Box 148
FIN-00121 Helsinki
FINLANDE

Date of mailing (day/month/year) 29 March 2001 (29.03.01)		
Applicant's or agent's file reference P299019PC/ko		IMPORTANT NOTICE
International application No. PCT/FI00/00781	International filing date (day/month/year) 15 September 2000 (15.09.00)	Priority date (day/month/year) 17 September 1999 (17.09.99)
Applicant KAUSTMARK OY et al		

1. Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this Notice:

AU,KP,KR,US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present Notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:

AE,AG,AL,AM,AP,AT,AZ,BA,BB,BG,BR,BY,BZ,CA,CH,CN,CR,CU,CZ,DE,DK,DM,DZ,EA,EE,EP,ES,
FI,GB,GD,GE,GH,GM,HR,HU,ID,IL,IN,IS,JP,KE,KG,KZ,LC,LK,LR,LS,LT,LU,LV,MA,MD,MG,MK,
MN,MW,MX,MZ,NO,NZ,OA,PL,PT,RO,RU,SD,SE,SG,SI,SK,SL,TJ,TM,TR,TT,TZ,UA,UG,UZ,VN,YU,
The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

3. Enclosed with this Notice is a copy of the international application as published by the International Bureau on 29 March 2001 (29.03.01) under No. WO 01/20978

REMINDER REGARDING CHAPTER II (Article 31(2)(a) and Rule 54.2)

If the applicant wishes to postpone entry into the national phase until 30 months (or later in some Offices) from the priority date, a **demand for international preliminary examination** must be filed with the competent International Preliminary Examining Authority before the expiration of 19 months from the priority date.

It is the applicant's sole responsibility to monitor the 19-month time limit.

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

REMINDER REGARDING ENTRY INTO THE NATIONAL PHASE (Article 22 or 39(1))

If the applicant wishes to proceed with the international application in the **national phase**, he must, within 20 months or 30 months, or later in some Offices, perform the acts referred to therein before each designated or elected Office.

For further important information on the time limits and acts to be performed for entering the national phase, see the Annex to Form PCT/IB/301 (Notification of Receipt of Record Copy) and Volume II of the PCT Applicant's Guide.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer J. Zahra
Facsimile No. (41-22) 740.14.35	Telephone No. (41-22) 338.83.38

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

REC'D 12 DEC 2001

PCT

14

Applicant's or agent's file reference P299019PC/ko	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/FI00/00781	International filing date (day/month/year) 15.09.2000	Priority date (day/month/year) 17.09.1999
International Patent Classification (IPC) or national classification and IPC ₇ A01K 85/00, A01K 97/00		
Applicant Kaustmark Oy et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☒ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 28.03.2001	Date of completion of this report 30.11.2001
Name and mailing address of the IPEA/SE Patent- och registreringsverket Telex Box 5055 17978 S-102 42 STOCKHOLM PATOREG-S Facsimile No. 08-667 72 88	Authorized officer Dagmar Järvman/BS Telephone No. 08-782 25 00

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FI00/00781

I. Basis of the report

1. With regard to the elements of the international application:*

☒ the international application as originally filed

☐ the description:

pages _____, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

☐ the claims:

pages _____, as originally filed

pages _____, as amended (together with any statement) under article 19

pages _____, filed with the demand

pages _____, filed with the letter of _____

☐ the drawings:

pages _____, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

☐ the sequence listing part of the description:

pages _____, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language English which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).

☒ the language of publication of the international application (under Rule 48.3(b)).

☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheet/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2 (c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item I and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FI00/00781

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	<u>1-10</u>	YES
	Claims		NO
Inventive step (IS)	Claims	<u>1-10</u>	YES
	Claims		NO
Industrial applicability (IA)	Claims	<u>1-10</u>	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

Cited documents:

D1 US 4349978 A (CHARLES R. PHILIP)

D2 US 5265368 A (JOHN B. TAYLOR).

D3 FI 4311 U (KAUSTMARK OY ET AL)

The documents D1-D2 cited in the International Search Report represent the general state of the art.

The invention defined in claims 1-10 is not disclosed by any of these documents.

None of the cited documents gives any indication towards the claimed swimming device for testing a lure to be used in rod fishing. No relevant combination of the cited documents would lead a person skilled in the art to the invention defined in the claims.

Accordingly, the invention defined in claims 1-10 is novel and is considered to involve an inventive step. It is also considered to be industrially applicable.

The document D3 is published prior to the international filing date but later than the priority date claimed.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FI00/00781

VI. Certain documents cited

1. Certain published documents (Rule 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
FI 4311U	31.01.2000	17.09.1999	17.09.1999

2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
29 March 2001 (29.03.2001)

PCT

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U990396 17 September 1999 (17.09.1999) FI

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(74) Agent: POHJANMAAN PATENTTITOIMISTO KOLSTER OY; C/o Kolster OY AB, Iso Roobertinkatu 23, P.O. Box 148, FIN-00121 Helsinki (FI).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

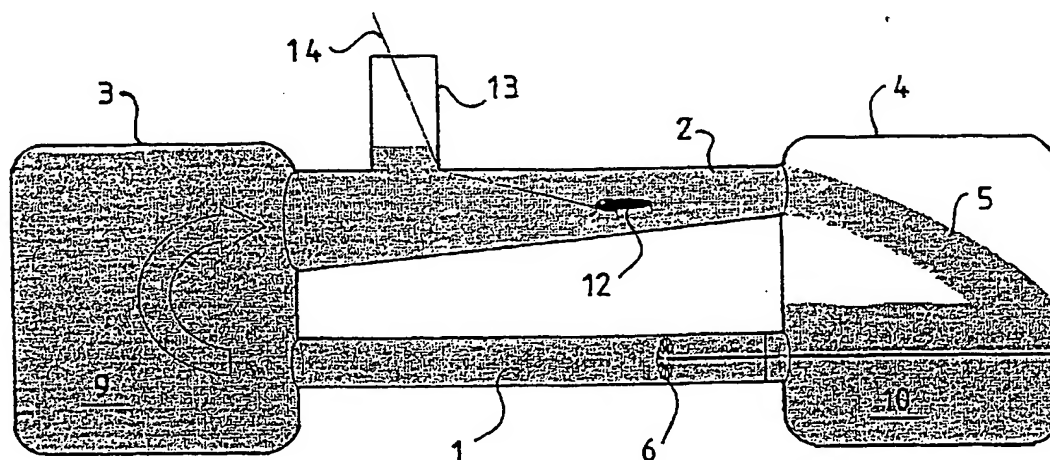
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

— With international search report.

[Continued on next page]

(54) Title: SWIMMING DEVICE



(57) Abstract: The present invention relates to a swimming device for testing a lure (12) used in rod-fishing. This type of a device comprises two substantially parallel pipe-like means (1, 2) on top of each other and arranged in a substantially horizontal position. The pipe-like means are preferably connected to each other by connection means (3, 4) arranged at both ends of the pipes, and there are stilling basins (9, 10) immediately next to the connection means. Further, a control means (6) maintaining the flow of the fluid (5) led into the swimming device is arranged into one of the pipe-like means. In the operating position of the device, the upper pipe-like means, i.e. testing pipe, has a lure tower (13) connected to the pipe and protruding from it, and the lure (12) can be lowered into the swimming device for testing it in the fluid flow caused by the control means in the testing pipe.

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

SWIMMING DEVICE

FIELD OF THE INVENTION

The present invention relates to a swimming device according to the preamble of claim 1, for testing a lure used in rod-fishing and angling.

5 BACKGROUND OF THE INVENTION

Making one's own lures has long been a special sector in lure-fishing and angling. A great deal of literature exists on the matter and various lure-making models and methods have been widely presented.

10 In general, lures are made at home and during winter in particular when less fishing is done especially in the northern hemisphere. One special problem in lure-making is then testing the finished lure or one being made. Testing requires a water pool in which the lure can be trolled and its behaviour thus observed in its environment of use. During open waters, a near-by water system can naturally be used as the water pool. Alternatively, the lure can be
15 tested at home in the bath tub if available.

Using water systems or tubs or the like is, however, difficult because it is difficult to accurately observe the movements of the lure. When testing the results of lure-making in tubs or pools, the achieved swimming movement of the lure is usually too short for it to allow any accurate
20 conclusions on the functioning of the lure in actual fishing conditions.

BRIEF DESCRIPTION OF THE INVENTION

It is thus an object of the present invention to eliminate the current drawbacks in lure-testing and to provide a novel solution which simply, advantageously and quickly illustrates the functioning of a finished lure or one
25 being made in different flow conditions.

This object is achieved by a swimming device having the characteristics of the invention defined in the claims. To be more precise, the device of the invention is mainly characterized by what is stated in the characterizing part of claim 1.

30 In the present invention, a lure refers to spinners, spoons, plugs and jigs used in lure-fishing and to different flies used in fly-fishing.

The invention provides considerable advantages. It provides a device for testing a lure in the immediate vicinity of the place where it is made, whereby making lures becomes considerably simpler than before. This way, a

lure being made can be tested immediately after it is finished, and testing different structural solutions is also very easy while the work progresses. The device is easy to use, since it is small, structurally simple and reliable. By means of the invention, it is also easy to test different lures in different flow conditions and when necessary, special devices can be constructed to best suit the testing of flies, spinners, plugs or the like.

It is easy to observe the swimming movement of the lure in the swimming device of the invention, because the testing pipe is preferably made entirely transparent by manufacturing it from plexiglass, for instance. The swimming movement can also be observed in different flow conditions by changing the flow rate of the water simply by adjusting the power of a control device in a lower pipe-like means.

The swimming device of the invention does not require much space, since it can be placed in any kind of work room. Because the device is fully water-proof, it also does not require any special water-proofing properties of its operating environment.

BRIEF DESCRIPTION OF THE FIGURES

In the following, the invention will be examined in greater detail by means of the appended drawings, in which

Figure 1 shows a schematic side view of a preferred embodiment of the swimming device of the invention, especially intended for testing large lures,

Figure 2 shows a perspective view of a smaller swimming device of the invention, especially suited for testing flies,

Figure 3 shows the longitudinal profile of the swimming device of Figure 2, and

Figure 4 shows the cross-profile of the swimming device of Figure 2.

DETAILED DESCRIPTION OF THE INVENTION

The structure and operation of the swimming device of the invention can be quickly described with reference to Figure 1. The device comprises two pipe-like means which are preferably arranged on top of each other and in which water runs, i.e. in operating position, the device shows a lower flow pipe 1 and an upper testing pipe 2. These pipe-like means are usually arranged in a substantially horizontal position and they are, in the vertical direction,

connected to each other by connection means 3 and 4 which enable the circulation of a fluid 5 - preferably water let into the device - in both means. The fluid let into the swimming device is circulated by a control means 6 arranged in the flow pipe, which control means preferably is a conventional propeller run by an electric motor 7. However, nothing prevents the use of another kind of arrangement known per se, such as a water turbine, for controlling the fluid.

To stabilise the flow of the fluid 5, at least the flow pipe 1 of the device can be fitted with control lamellas 8 in the longitudinal direction of the pipe as shown in Figure 4. On the other hand, stilling basins 9 and 10 are arranged at each end of the device to control the swirling of the fluid and the fluid in the device is led through the basins as it flows between the flow pipe and the testing pipe 2. The stilling basins can also be equipped with control lamellas 11 or the like to reduce the swirling of the fluid.

The upper pipe-like means, i.e. testing pipe 2, is arranged to be at least partly transparent by manufacturing it of plexiglass or acrylic resin, for instance, whereby the lure 12 lowered into the pipe and its behaviour in the flow of the testing pipe can be seen from all essential directions. The testing pipe has reception means 13, i.e. a lure tower, for lowering the lure into the testing tube, and the reception means are arranged to open at their testing-pipe-end into the testing pipe, their other end being arranged to receive the lure placed into the lure tower.

The device functions by filling it with fluid 5, usually clean water, as shown in Figure 1. The device is filled up to the reception means 13 to create pressure in the testing pipe 2. When the device is filled with water, the required water flow is achieved by the control means 6 by starting the motor 7. Forced by the control means, water flows to the stilling basin 9 at the end of the lower pipe-like means, i.e. flow pipe 1, which basin is arranged to be closed, and onward through the connection means 3 to the upper pipe-like means, i.e. testing pipe 2. The testing pipe is preferably arranged to narrow in the direction of fluid flow, which prevents air bubbles generated by the control means from collecting on the walls of the pipe and allows them to flow to the lure tower and exit the device. The water flows at a rate defined by the control means through the testing pipe and exits through the connection means 4 at the other end of the pipe to the second stilling basin 10. By also making the stilling basin 10 closed, the efficiency of the device is improved, but a closed

structure of the basin is, however, not necessary for the operation of the device. Next, the lure 12 to be tested is attached to a fishing line 14 and lowered from the lure tower 13 to the testing pipe where its swimming movement can be observed. In addition, an accelerating flow rate is achieved in the testing pipe which narrows toward its other end, whereby the lure being tested can immediately be tested in different flow conditions by moving it to different locations in the testing pipe.

Figures 2 to 4 shows a swimming device intended especially for flies and small lures and mainly corresponding in structure to the device described above. This second embodiment of the invention is, however, more compact in structure, and the pipe-like means - flow pipe 1 and testing pipe 2 - are connected to each other to reduce the size and simplify the structure. The propeller acting as the control means 6 is arranged in the flow pipe, and the testing pipe 2 which preferably narrows toward its other end is tightly arranged on the top surface 15 of the outer casing of the pipe. This testing pipe can be in shape a cut off pyramid, for instance, as in Figure 2 or a cut off cone. The water being circulated in the device is led between the pipes through two flow ports 16 and 17 acting as connection means and located on the top surface of the casing of the flow pipe. These flow ports are arranged at a distance from the flow pipe ends 18 and 19, thus forming the stilling basins 9 and 10 at each end of the flow pipe. To reduce swirling in the water flow, concentric protrusions 11 according to Figure 2 are preferably located in the end pieces 20 which close the ends of the flow pipe.

The lure tower 13 is preferably arranged on the top surface of the outer casing of the testing pipe 2 in such a manner that the discharge opening 21 between the lure tower and the testing pipe is, in the flow direction of water, arranged to be at least partly separate from the flow port 16 below in order to form a third stilling basin 22 at the end of the testing pipe. This prevents the flowing water from hitting the lure tower and achieves a steadier flow on the entire length of the device.

The second embodiment of the device according to the invention functions by filling it with water, for instance, as shown in Figure 2. In this case, too, the filling is performed up to the reception means 13 to create a sufficient pressure to steady the water flow in the testing pipe 2. When the device is filled with water, the required water flow is achieved by the control means 6 by starting the motor 7, and forced by the control means, water flows

to the stilling basin 9 at the end of the flow pipe 1. From the stilling basin, water flows through the flow port 16 to the testing pipe 2 and the third stilling basin 22 between the lure tower and the end of the testing pipe. Water flows on at the rate defined by the control means through the testing pipe arranged to narrow in the flow direction and discharges through the flow port 17 at the other end of the testing pipe to the second stilling basin 19 at the end of the flow pipe and on again to the control means. The lure 12 to be tested is attached to a line 14 and lowered from the lure tower 13 into the testing pipe where its swimming movement can be observed.

10 It is to be understood that the above description and the related figures are only intended to illustrate the present invention. The invention is thus not restricted to the above or to the embodiment specified in the claims, but it will be obvious to a person skilled in the art that many variations and modifications of the invention are possible within the scope of the inventive
15 idea specified in the appended claims.

CLAIMS

1. A swimming device for testing a lure (12) to be used in rod-fishing, **characterized** in that the swimming device comprises two substantially parallel pipe-like means, a flow pipe (1) and testing pipe (2), which are arranged in a substantially horizontal position and connected together by connection means (3, 4) arranged preferably at both ends of the pipes, and there are stilling basins (9, 10) immediately next to the connection means, and that a control means (6) maintaining the flow of a fluid (5) led into the swimming device is arranged in one pipe-like means, for testing the lure (12) lowered into the swimming device through a lure tower (13) extending from the testing pipe and connected thereto, in a fluid flow generated in the testing pipe.
2. A swimming device as claimed in claim 1, **characterized** in that the testing pipe (2) is at least partly transparent.
3. A swimming device as claimed in claim 1 or 2, **characterized** in that the control means (6) is a propeller.
4. A swimming device as claimed in any one of the preceding claims, **characterized** in that the control means (6) is arranged in the flow pipe (1).
5. A swimming device as claimed in any one of the preceding claims, **characterized** in that the flow pipe (1) has control lamellas (8) in the longitudinal direction of the device to prevent swirling in the fluid flow.
6. A swimming device as claimed in any one of the preceding claims, **characterized** in that the testing pipe (2) is arranged to the side of the flow pipe (1) in such a manner that the connection means comprise flow ports (16, 17) in the casing of the flow pipe.
7. A swimming device as claimed in any one of the preceding claims, **characterized** in that the flow pipe (1) is arranged to be longer than the testing pipe (2) and to have stilling basins (9, 10) at both ends.
8. A swimming device as claimed in any one of claims 4 to 7, **characterized** in that at least the stilling basin (9) on the side of the direction of fluid flow caused by the control means (6) has protrusions (11) to reduce the swirling movement of the fluid (5).
9. A swimming device as claimed in claim 8, **characterized** in that the protrusions (11) are concentric.

10. A swimming device as claimed in any one of the preceding claims, **characterized** in that a discharge opening (21) connecting the lure tower (13) and the testing pipe (2) is arranged in the flow direction of the fluid (5) to be at least partly separate from the flow port (16) between the
5 testing pipe and the flow pipe (1).

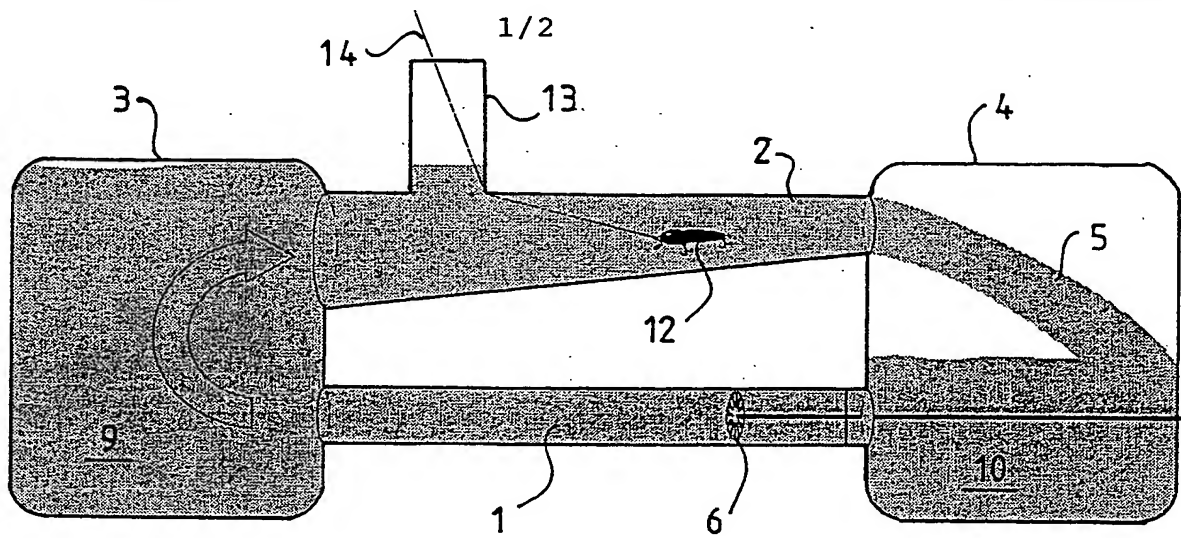


FIG. 1

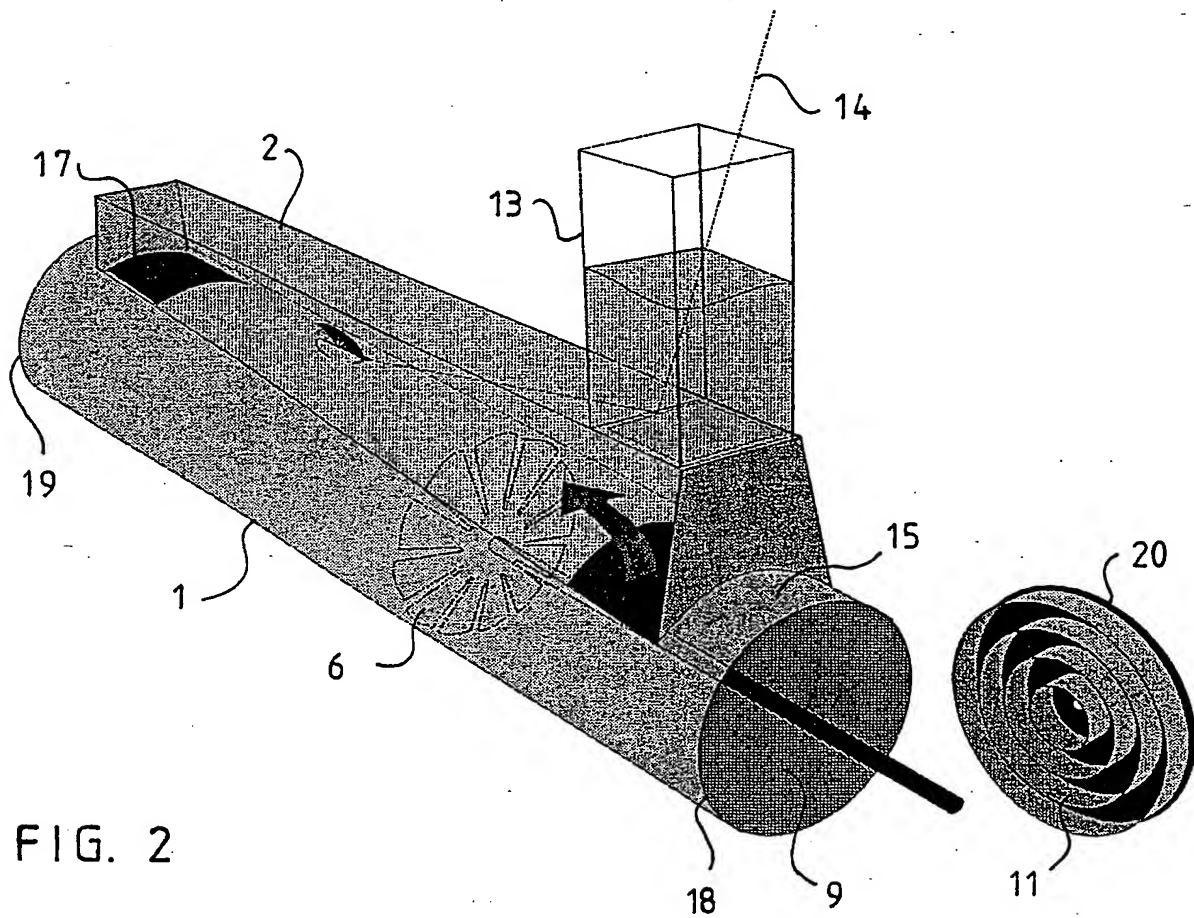


FIG. 2

2/2

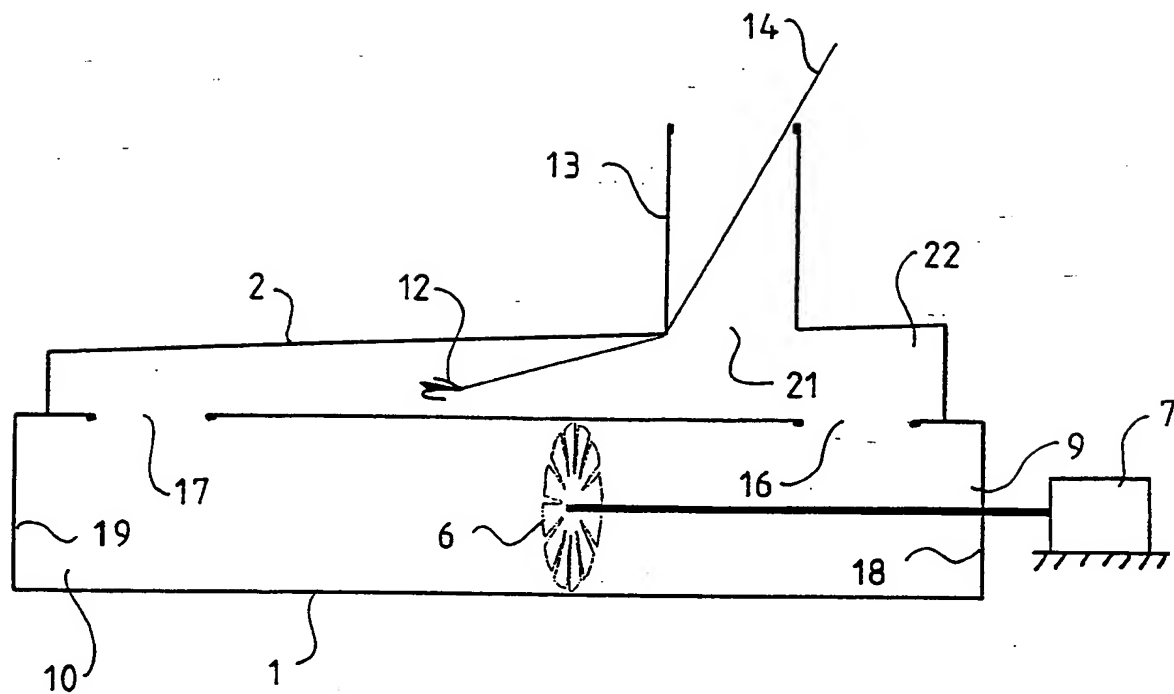


FIG. 3

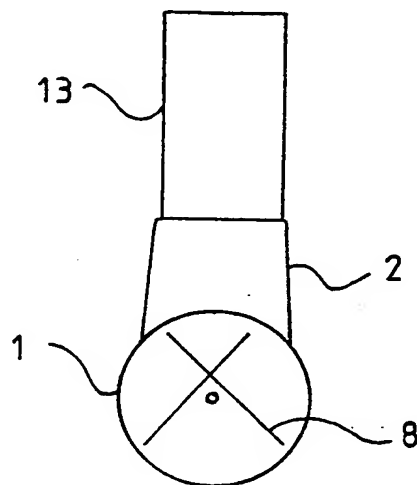


FIG. 4

INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 00/00781

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: A01K 85/00, A01K 97/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	FI 4311 A (KAUSTMARK OY ET AL), 31 January 2000 (31.01.00) --	1-10
A	US 4349978 A (CHARLES R. PHILIP), 21 Sept 1982 (21.09.82) --	1-10
A	US 5265368 A (JOHN B. TAYLOR), 30 November 1993 (30.11.93) -- -----	1-10

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
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"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

11 December 2000

Name and mailing address of the ISA/
Swedish Patent Office
Box 5055, S-102 42 STOCKHOLM
Facsimile No. +46 8 666 02 86

Date of mailing of the international search report

20 -12- 2000

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INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/FI 00/00781

Patent document cited in search report			Publication date	Patent family member(s)	Publication date
FI	4311	A	31/01/00	FI 990396 A,V WO 0051203 A	25/08/00 31/08/00
US	4349978	A	21/09/82	US 4084342 A	18/04/78
US	5265368	A	30/11/93	NONE	

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1/4

PCT REQUEST

P299019PC/ko

Original (for SUBMISSION) - printed on 15.09.2000 01:37:29 PM

0 0-1	For receiving Office use only International Application No.	PCT/FI 00 / 00781
0-2	International Filing Date	15 SEP 2000 (15-09-2000)
0-3	Name of receiving Office and "PCT International Application"	The Finnish Patent Office PCT International Application
0-4 0-4-1	Form - PCT/RO/101 PCT Request Prepared using	PCT-EASY Version 2.91 (updated 01.07.2000)
0-5	Petition The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty	
0-6	Receiving Office (specified by the applicant)	National Board of Patents and Registration (Finland) (RO/FI)
0-7	Applicant's or agent's file reference	P299019PC/ko
I	Title of invention	SWIMMING DEVICE
II II-1 II-2 II-4 II-5	Applicant This person is: Applicant for Name Address:	applicant only all designated States except US KAUSTMARK OY Vissavedentie 1 FIN-69600 Kaustinen Finland
II-6	State of nationality	FI
II-7	State of residence	FI
III-1 III-1-1 III-1-2 III-1-4 III-1-5	Applicant and/or inventor This person is: Applicant for Name (LAST, First) Address:	applicant and inventor US only PETÄJÄ-SUVANTO, Tuomo Peltolankuja 3 FIN-69700 Veteli Finland
III-1-6	State of nationality	FI
III-1-7	State of residence	FI

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IV-1	Agent or common representative; or address for correspondence The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:	agent
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V	Designation of States	
V-1	Regional Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	AP: GH GM KE LS MW MZ SD SL SZ TZ UG ZW and any other State which is a Contracting State of the Harare Protocol and of the PCT EA: AM AZ BY KG KZ MD RU TJ TM and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT EP: AT BE CH&LI CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE and any other State which is a Contracting State of the European Patent Convention and of the PCT OA: BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG and any other State which is a member State of OAPI and a Contracting State of the PCT
V-2	National Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	AE AG AL AM AT (patent and utility model) AU AZ BA BB BG BR BY BZ CA CH&LI CN CR CU CZ (patent and utility model) DE (patent and utility model) DK (patent and utility model) DM DZ EE (patent and utility model) ES FI (patent and utility model) GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR (patent and utility model) KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK (patent and utility model) SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

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V-5	Precautionary Designation Statement In addition to the designations made under items V-1, V-2 and V-3, the applicant also makes under Rule 4.9(b) all designations which would be permitted under the PCT except any designation(s) of the State(s) indicated under item V-6 below. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit.	
V-6	Exclusion(s) from precautionary designations	NONE
VI-1	Priority claim of earlier national application	
VI-1-1	Filing date	17 September 1999 (17.09.1999)
VI-1-2	Number	U990396
VI-1-3	Country	FI
VI-2	Priority document request The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) identified above as item(s):	VI-1
VII-1	International Searching Authority Chosen	Swedish Patent Office (ISA/SE)
VIII	Check list	number of sheets electronic file(s) attached
VIII-1	Request	4 -
VIII-2	Description	5 -
VIII-3	Claims	2 -
VIII-4	Abstract	1 p299019pc.txt
VIII-5	Drawings	2 -
VIII-7	TOTAL	14
VIII-8	Accompanying items	paper document(s) attached electronic file(s) attached
VIII-8	Fee calculation sheet	✓ -
VIII-16	PCT-EASY diskette	- diskette
VIII-18	Figure of the drawings which should accompany the abstract	1
VIII-19	Language of filing of the international application	Finnish
IX-1	Signature of applicant or agent	 Klaus Raitto
IX-1-1	Name	POHJANMAA PATENTTITOIMISTO KOLSTER OY

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10-1	Date of actual receipt of the purported international application	15 SEP 2000	(9 5 -00- 2000)
10-2	Drawings:		
10-2-1	Received		
10-2-2	Not received		

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10-3	Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application	
10-4	Date of timely receipt of the required corrections under PCT Article 11(2)	
10-5	International Searching Authority	ISA/SE
10-6	Transmittal of search copy delayed until search fee is paid	X

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11-1	Date of receipt of the record copy by the International Bureau	03 OCTOBER 2000	(0 3 . 10 . 00)
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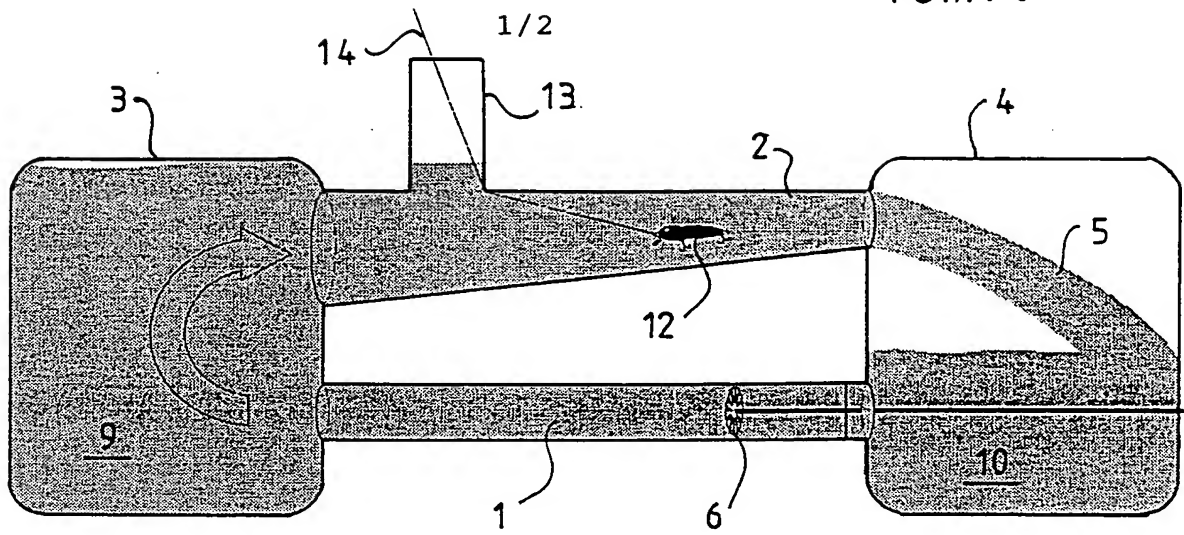


FIG. 1

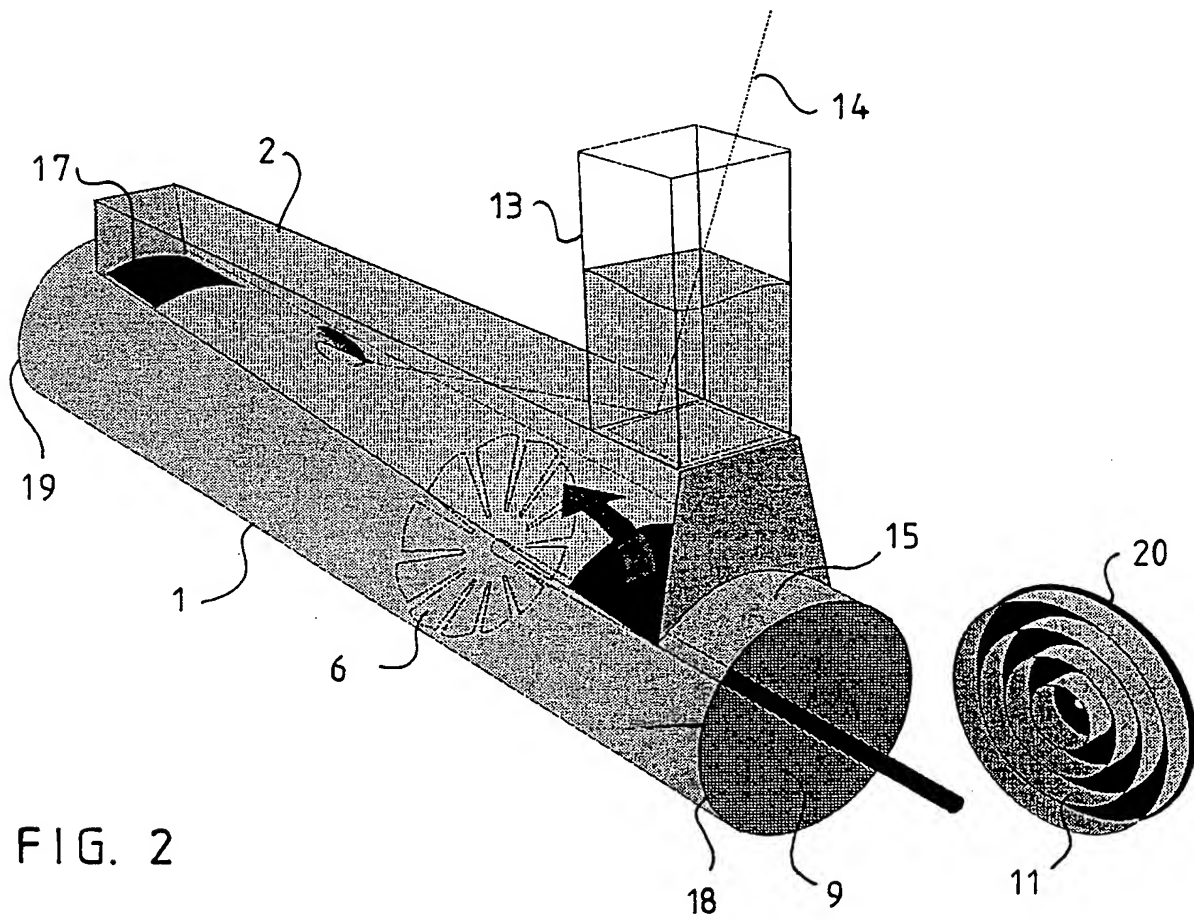


FIG. 2

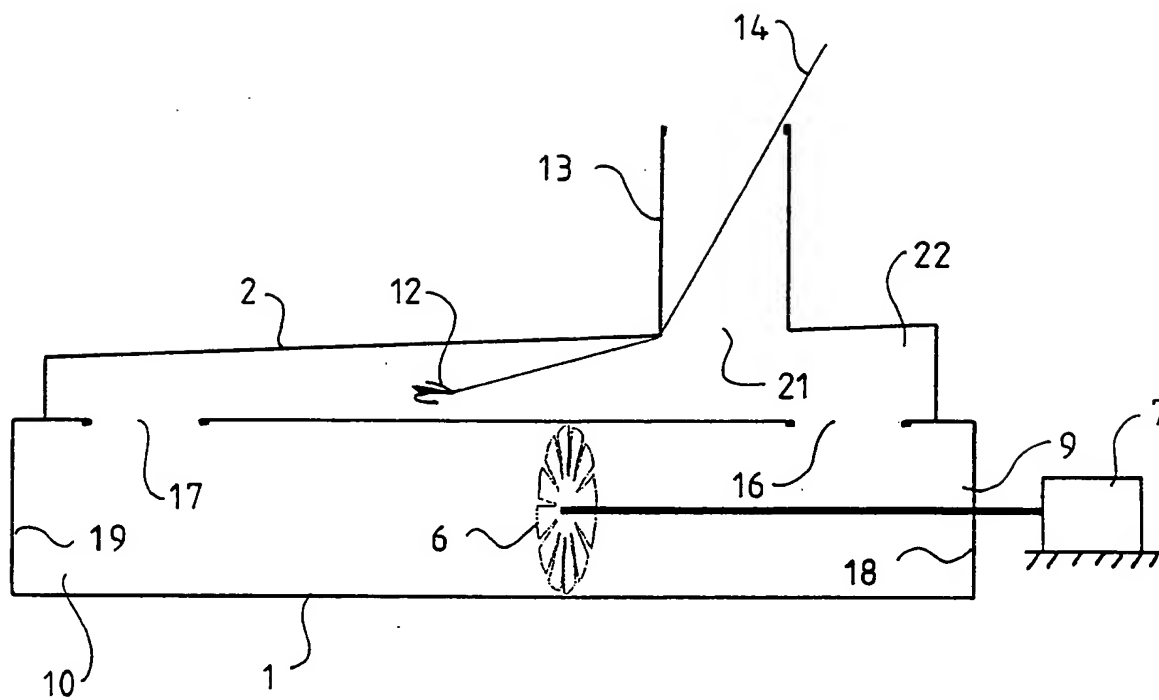


FIG. 3

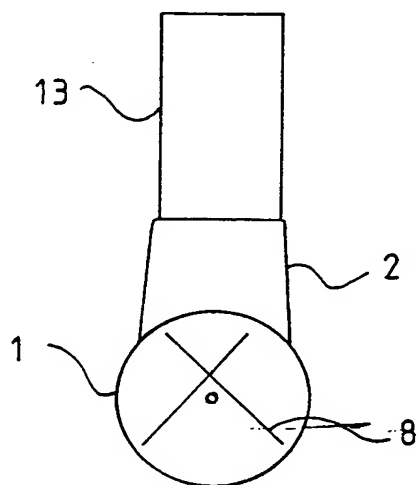


FIG. 4

Uittolaite

Keksinnön ala

Esillä oleva keksintö koskee patenttivaatimuksen 1 johdannon mukaisista uittolaitetta vapakalastuksessa ja onginnassa käytettävän vieheen testaamiseksi.

Keksinnön tausta

Viehekalastuksen ja onginnan yhtenä erityisenä harrastuksen osamuotona on pitkään ollut omien vieheiden valmistaminen. Alan kirjallisuutta on paljon ja erilaisia vieheitten valmistusmalleja ja -menetelmiä on laajalti esitelty.

Yleensä vieheitä rakennetaankin kotiloissa ja etenkin talvisaikaan, kun muu kalastuksen harrastaminen, varsinkin pohjoisella pallonpuoliskollamme, jää vähäisemmäksi. Tällöin rakentamisen yhdeksi erityiseksi ongelmaksi muodostuu rakenteilla olevan tai rakennetun vieheen testaaminen. Testaamiseen tarvitaan vesiallas, jossa viehettä voidaan vetää ja siten tarkkailla sen käyttäytymistä luonnollisessa käyttöympäristössään. Vesialtaana voidaan luonnollisesti käyttää sulan veden aikana jotain läheistä vesistöä. Vaihtoehtoisesti voi viehettä yrittää testata kotona kylpyammeessa sellaisen ollessa käytössä.

Vesistöjen tai ammeiden ja tämän kaltaisten altaiden käyttö on kuitenkin hankalaa, koska vieheen liikkeitä on vaikea seurata tarkasti. Testattaessa rakennustyön tuloksia erilaisissa ammeissa tai altaissa on lisäksi vieheelle aikaansaattava uintiliike useimmiten liian lyhyt, jotta siitä voitaisiin riittävällä tarkkuudella tehdä minkään kaltaisia johtopäätöksiä vieheen toimivuudesta todellisissa olosuhteissa.

Keksinnön lyhyt selostus

Esillä olevan keksinnön tarkoituksena onkin poistaa vieheiden testauksessa nykyisellään olevat epäkohdat ja saada aikaan aivan uudenlainen ratkaisu, jolla yksinkertaisesti, edullisesti ja nopeasti saadaan havainnollistetuksi rakennetun tai rakenteilla olevan vieheen toiminto erilaisissa virtausolosuhteissa.

Tämä tarkoitus saavutetaan siten, että uittolaitteella on tämän keksinnön mukaisesti patenttivaatimuksissa määritellyt tunnusmerkit. Täsmällisemmin sanottuna on tälle keksinnön mukaiselle laitteelle pääasiallisesti tunnusmerkit, mikä on esitetty patenttivaatimuksen 1 tunnusmerkkiosassa

Esillä olevassa keksinnössä vieheellä tarkoitetaan niin uistinkalastuksessa käytettäviä niin sanottuja lippoja, lusikoita, vaappuja ja jigejä, kuin perhokalastuksessa käytettäviä erilaisia perhoja.

Keksinnön avulla saavutetaan huomattavia etuja. Niinpä sillä aikaan-
5 saadaan laite vieheen testaamiseksi välittömästi sen rakennuspaikan lähistöllä, jolloin yksinkertaistetaan omien vieheiden rakentamista merkittävästi. Näin rakenteilla olevaa viehettä voidaan kokeilla nopeasti heti sen valmistuttua, mutta myös erilaisten rakenneratkaisujen kokeileminen työn edetessä on huomattavan helppo tehdä. Laitetta onkin helppo käyttää sen ollessa pieni, rakenteeltaan yksinkertainen ja luotettava. Keksinnön avulla on myös helppo testata erilaisia vie-
10 heitä erilaisissa virtausolosuhteissa ja tarvittaessa siitä voidaan valmistaa erikoisia laitteita, jotka kukin soveltuvat parhaiten perhojen, lippojen, vaappujen tms. kulloiseenkin testaukseen.

Keksinnön mukaisessa uittolaitteessa on helppo seurata vieheen
15 uintiliikettä laitteen koestusputken ollessa edullisesti tehty kokonaan läpinäkyväksi valmistamalla se esimerkiksi pleximuovista. Uintiliikettä voidaan myös seurata erilaisissa virtausolosuhteissa vaikuttamalla veden virtausnopeuteen yksinkertaisesti säätämällä alemmassa putkimaisessa välineessä olevan ohjauslaitteen tehoa.

20 Keksinnön mukainen uittolaite ei myöskään vaadi suuria tiloja sen ollessa näin asetettavissa mihin tahansa työhuoneeseen. Laitteen ollessa täysin vesitiivis se ei myöskään vaadi käyttöympäristöltään erityisiä vedeneristysominaisuuksia.

Kuvioiden lyhyt selostus

25 Keksintöä ryhdytään seuraavassa lähemmin tarkastelemaan oheisten piirustusten avulla, jolloin

kuviossa 1 on esitetty kaavamainen sivukuvanto keksinnön mukaisen uittolaitteen eräästä edullisesta suoritusmuodosta, erityisesti suurempien uistinten testaamiseksi,

30 kuviossa 2 on esitetty perspektiivikuva keksinnön mukaisesta pienemmästä uittolaitteesta, joka soveltuu erityisesti perhojen testaamiseen,

kuviossa 3 on esitetty kuvion 2 mukaisen uittolaitteen pituusleikkaus

ja

kuviossa 4 on esitetty kuvion 2 mukaisen uittolaitteen poikkileikkaus

K ksinnön yksityiskohtain n s lostus

Viitaten kuvioon 1 voidaan keksinnön mukaisen uittolaitteen rakenne ja toiminto selvittää nopeasti. Niinpä laite käsittää kaksi edullisesti päällekkäiseen asemaan järjestettyä vettä johtavaa putkimaista välinettä, eli laitteen
5 käyttöasennossa erottuvat niin sanotut alempi virtausputki 1 ja ylempi koestusputki 2. Nämä putkimaiset välineet ovat tavanomaisesti järjestettyjä oleellisesti vaakasuoraan asentoon ja ovat pystysuunnassa liitettyjä toisiinsa yhdysvälineillä 3 ja 4, jotka mahdollistavat nesteen 5 - edullisesti laitteeseen laske-
10 tun veden - kiertämisen molemmissa välineissä. Uittolaitteeseen johdettua nestettä kierrättää virtausputkeen sovitettu ohjausväline 6, jollaisena edullisesti käytetään tavanomaista sähkömoottorilla 7 pyöritettävää potkuria. Mikään ei kuitenkaan estä käyttämästä nesteen ohjaamiseen jotain muuta si-
nänsä tunnettua järjestelyä, kuten vesiturbiinia tms.

Nesteen 5 virtauksen stabiloimiseksi on ainakin laitteen virtausput-
15 keen 1 sovitettavissa putken pituussuuntaiset ohjauslamellit 8 kuvion 4 mukaisesti. Toisaalta nesteen pyörteilyä on myös järjestetty hillitsemään laitteen kummassakin päässä olevat vaimennusaltaat 9 ja 10, joiden kautta laitteessa oleva neste ohjataan sen siirtyessä virtausputken ja koestusputken 2 välillä. Myös nämä vaimennusaltaat voidaan varustaa ohjauslamelleilla 11 tai vastaa-
20 villa nesteen pyörteilyn vähentämiseksi.

Ylempi putkimainen väline, eli koestusputki 2, on järjestetty ainakin osittain läpinäkyväksi valmistamalla se esimerkiksi pleksi- tai akryylimuovista, jolloin putkeen laskettava viehe 12 ja sen käyttäytyminen koestusputken virtauksessa on nähtävissä kaikilta olennaisilta suunniltaan. Vieheen laskemiseksi
25 koestusputkeen on siinä vastaanottovälineet 13, eli niin sanottu viehetorni, vastaanottovälineiden ollessa sovitettuja avautumaan koestusputken puoleisesta päästään koestusputkeen, jolloin niiden toinen pää on sovitettu vastaanottamaan viehetorniin laskettava viehe.

Laite toimii siten, että se kuvan 1 mukaisesti täytetään nesteellä 5, tavanomaisesti puhtaalla vedellä. Laitteen täyttö suoritetaan vastaanottoväli-
30 neitä 13 myöten paineen aikaansaamiseksi koestusputkeen 2. Laitteen ollessa vedellä täytetty aikaansaadaan tarvittava vesivirtaus ohjausvälineellä 6 käynnistämällä moottori 7. Vesi virtaa ohjausvälineen pakottamana alemman putkimaisen välineen, eli virtausputken 1, päässä olevaan vaimennusaltaaseen 9, joka on järjestetty umpinaiseksi, ja siitä edelleen yhdysvälineen 3 kautta ylempään putkimaiseen välineeseen, eli koestusputkeen 2. Koestusputki on edulli-
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sesti järjestetty nesteen virtaussuunnassa kaventuva, jolloin vältetään ohjausvälineen synnyttämien ilmakuplien haitalliselta kerääntymiseltä putken seinämille niiden ohjautuessa viehetorniin ja poistuessa näin laitteesta. Vesi virtaa ohjausvälineen määrittelemällä nopeudella koestusputken läpi purkaantuen putken toisessa päässä yhdysvälineen 4 kautta sen yhteydessä olevaan toiseen vaimennusaltaaseen 10. Järjestämällä myös vaimennusallas 10 umpinaiseksi parannetaan laitteen tehoa, mutta altaan umpinainen rakenne ei kuitenkaan ole laitteen toiminnan kannalta välttämätöntä. Tämän jälkeen testattava viehe 12 lasketaan viehetornista 13 siimaan 14 kiinnitettynä koestusputkeen, jossa sen uintiliikettä voidaan seurata. Toista päätään kohti kaventuvassa koestusputkessa aikaansaadaan lisäksi vedelle kiihtyvä virtausnopeus, jolloin testattavaa viehettä voidaan heti kokeilla erilaisissa virtausolosuhteissa siirtämällä se koestusputken eri kohtiin.

Kuvioissa 2 - 4 on esitetty erityisesti perhoille ja pienille uistimille tarkoitettu uittolaite, joka rakenteeltaan pääosin vastaa yllä kuvailtua laitetta. Tällainen keksinnön toinen suoritusmuoto on kuitenkin rakenteeltaan kompaktimpi laite, jolloin putkimaiset välineet - virtausputki 1 ja koestusputki 2 - ovat liitettyjä toisiinsa koon pienentämiseksi ja rakenteen yksinkertaistamiseksi. Tällöin ohjausvälineenä 6 toimiva potkuri on sovitettu virtausputkeen ja putken ulkovaipan yläpintaan 15 on tiiviisti järjestetty edullisesti toista päätä kohti suipistuva koestusputki 2. Tämä koestusputki voi muodoiltaan olla esimerkiksi katkaistu pyramidi kuten kuviossa 2 tai katkaistu kartio. Laitteessa kierrätettävä vesi johdetaan putkien välillä virtausputken vaipan yläpinnassa olevien kahden yhdysvälineinä toimivan virtausaukon 16 ja 17 kautta. Nämä virtausaukot ovat järjestettyjä etäisyyden päähän virtausputken päädyistä 18 ja 19, muodostaen näin virtausputken kumpaankin päähän vaimennusaltaat 9 ja 10. Vesivirtauksen pyörteilyn vähentämiseksi on virtausputken päät sulkevissa päätykappaleissa 20 edullisesti kuvion 2 mukaiset samankeskkiset ulokkeet 11.

Viehetorni 13 on edullisesti sovitettu koestusputken 2 ulkovaipan yläpintaan 15 siten, että viehetornin ja koestusputken välinen laskuaukko 21 on järjestetty veden virtaussuunnassa ainakin osittain erilleen alapuolisesta virtausaukosta 16, kolmannen vaimennusaltaan 22 muodostamiseksi koestusputken päähän. Näin on välttytty virtaavan veden iskeytymiseltä viehetorniin ja on aikaansaatu tasaisempi virtaus koko laitteen pituudella.

Tämä keksinnön mukaisen laitteen toinen edullinen suoritusmuoto toimii siten, että se kuvan 2 mukaisesti täytetään esimerkiksi vedellä. Tällöinkin laitteen täyttö suoritetaan vastaanottovälineitä 13 myöten riittävän, veden virtausta tasaavan, paineen aikaansaamiseksi koestusputkeen 2. Laitteen ollessa vedellä täytetty aikaansaadaan tarvittava vesivirtaus ohjausvälineellä 6 käynnistämällä moottori 7, jolloin vesi virtaa ohjausvälineen pakottamana virtausputken 1 päähän muodostuneeseen vaimennusaltaaseen 9. Vaimennusaltaan kautta vesi virtaa virtausaukon 16 kautta koestusputkeen 2 ja siinä olevaan viehetornin ja koestusputken pään rajaamaan kolmanteen vaimennusaltaaseen 22. Vesi virtaa edelleen ohjausvälineen määrittelemällä nopeudella virtaussuunnassaan kaventuvaan järjestetyn koestusputken läpi purkaantuen tämän toisessa päässä olevan virtausaukon 17 kautta virtausputken päähän muodostuvaan toiseen vaimennusaltaaseen 10, josta vesi siirtyy uudestaan ohjausvälineelle. Testattava viehe 12 lasketaan viehetornista 13 siimaan 14 kiinnitettynä koestusputkeen, jossa sen uintiliike on seurattavissa.

On ymmärrettävä, että edellä oleva selitys ja siihen liittyvät kuviot on ainoastaan tarkoitettu havainnollistamaan esillä olevaa keksintöä. Keksintöä ei siten ole rajattu pelkästään edellä esitettyyn tai patenttivaatimuksissa määriteltyyn suoritusmuotoon, vaan alan ammattimiehille tulevat olemaan ilmeisiä monet erilaiset keksinnön variaatiot ja muunnokset, jotka ovat mahdollisia oheisten patenttivaatimusten määrittelemän keksinnöllisen ajatuksen puitteissa.

Patenttivaatimukset

1. Uittolaite vapakalastuksessa käytettävän vieheen (12) testaamiseksi, tunnettu siitä, että uittolaite käsittää kaksi oleellisesti rinnakkaista putkimaista välinettä, virtausputken (1) ja koestusputken (2), jotka ovat sovitettuja oleellisesti vaakasuoraan asentoon ja joita liittävät toisiinsa edullisesti
5 putkien kumpiinkin päihin järjestetyt yhdysvälineet (3, 4), jolloin yhdysvälineiden välittömässä yhteydessä on vaimennusaltaat (9, 10) ja, että toiseen putkimaiseen välineeseen on sovitettu uittolaitteeseen johdetun nesteen (5) virtausta ylläpitävä ohjausväline (6), koestusputkesta ulkonevan ja siihen yhteydessä olevan viehetornin (13) kautta uittolaitteeseen laskettavan vieheen (12)
10 testaamiseksi koestusputkessa aikaansaataavassa nestevirtauksessa.

2. Patenttivaatimuksen 1 mukainen uittolaite, tunnettu siitä, että koestusputki (2) on ainakin osaksi läpinäkyvä.

3. Patenttivaatimuksen 1 tai 2 mukainen uittolaite, tunnettu
15 siitä, että ohjausväline (6) on potkuri.

4. Jonkin edellisen patenttivaatimuksen mukainen uittolaite, tunnettu siitä, että ohjausväline (6) on sovitettu virtausputkeen (1).

5. Jonkin edellisen patenttivaatimuksen mukainen uittolaite, tunnettu siitä, että virtausputkessa (1) on laitteen pituussuuntaiset ohjauslamellit (8) nestevirtauksen pyörteisyyden ehkäisemiseksi.
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6. Jonkin edellisen patenttivaatimuksen mukainen uittolaite, tunnettu siitä, että koestusputki (2) on järjestetty virtausputken (1) kylkeen siten, että yhdysvälineet käsittävät virtausputkessa olevassa vaipassa olevat virtausaukot (16, 17).

7. Jonkin edellisen patenttivaatimuksen mukainen uittolaite, tunnettu siitä, että virtausputki (1) on sovitettu olemaan koestusputkea (2) pitempi muodostaen kumpaankin päähänsä vaimennusaltaat (9, 10).
25

8. Jonkin patenttivaatimuksen 4 - 7 mukainen uittolaite, tunnettu siitä, että ainakin ohjausvälineen (6) aikaansaaman nestevirtauksen etenemissuunnan puoleisessa vaimennusaltaassa (9) on ulokkeet (11) nesteen (5) pyörimisliikkeen vähentämiseksi.
30

9. Patenttivaatimuksen 8 mukainen uittolaite, tunnettu siitä, että ulokkeet (11) ovat samankeskisesti järjestettyjä.

10. Jonkin edellisen patenttivaatimuksen mukainen uittolaite, tunnettu siitä, että viehetornin (13) ja koestusputken (2) yhdistävä laskuaukko (21) on järjestetty nesteen (5) virtaussuunnassa ainakin osittain erilleen koestusputken ja virtausputken (1) välisestä virtausaukosta (16).

(57) Tiivistelmä

Esillä oleva keksintö liittyy uittolaitteeseen vapakalastuksessa käytettävän vieheen (12) testaamiseksi. Tällainen laite käsittää kaksi oleellisesti rinnakkaista ja päällekkäistä putkimaista välinettä (1, 2), jotka ovat sovitettuja oleellisesti vaakasuoraan asentoon. Putkimaiset välineet ovat liitettyjä toisiinsa edullisesti putkien kumpiinkin päihin järjestetyillä yhdysvälineillä (3, 4), joiden yhdysvälineiden välittömässä yhteydessä on vaimennusaltaat (9, 10). Toiseen putkimaiseen välineeseen on edelleen sovitettu uittolaitteeseen johdettavan nesteen (5) virtausta ylläpitävä ohjausväline (6). Laitteen käyttöasennossa ylempänä olevassa putkimaisessa välineessä, eli niin sanotussa koestusputkessa, on siihen yhteydessä oleva ja siitä ulkoneva viehetorni (13), jolloin uittolaitteeseen on laskettavissa viehe (12) sen testaamiseksi ohjausvälineen koestusputkeen aikaansaamassa nestevirtauksessa.

(Kuvio 1)